

Illiana Expressway Feasibility Study

presented to

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presented by

Cambridge Systematics

on behalf of

The Indiana Department of Transportation

October 18, 2007

Transportation leadership you can trust.



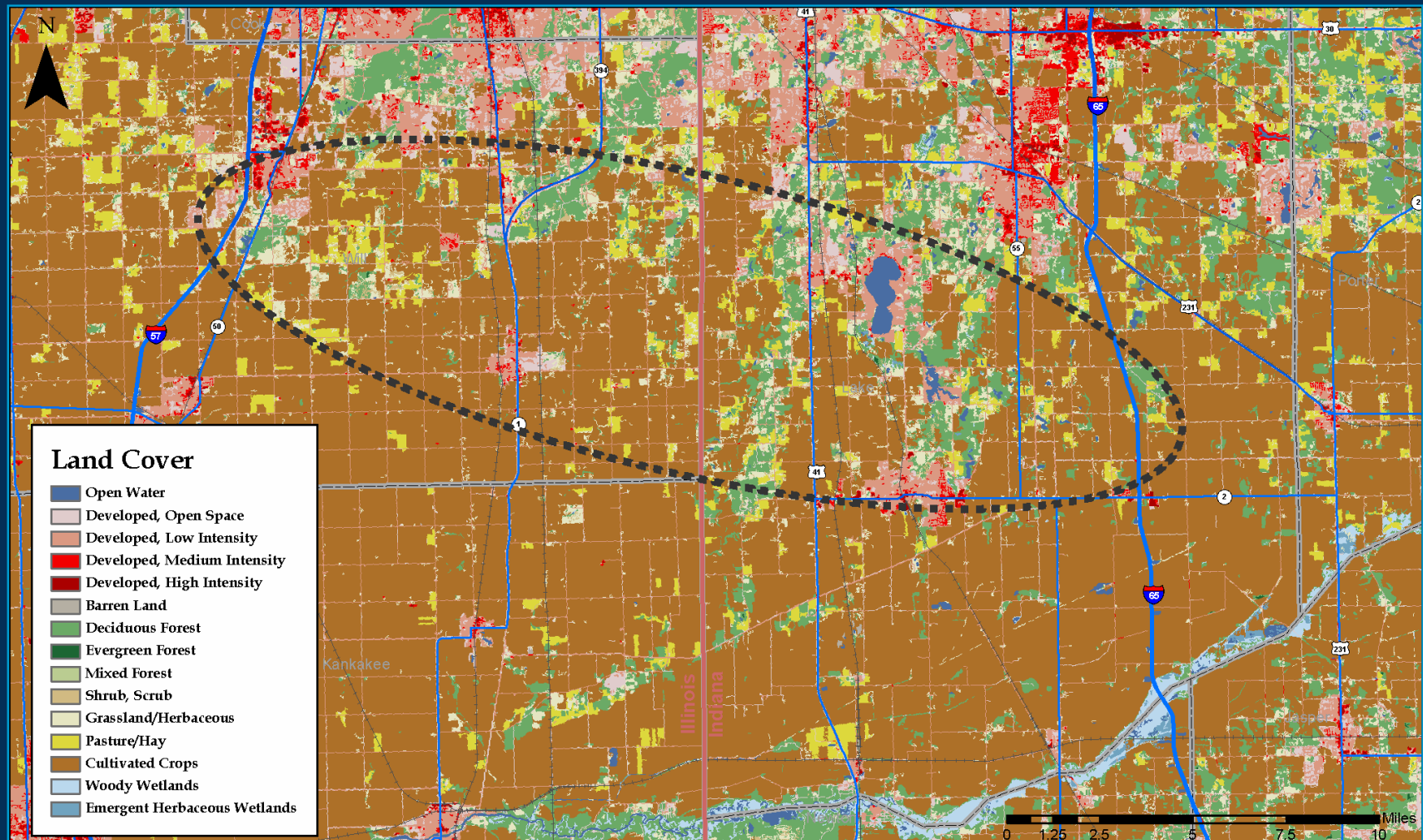
The Illiana Expressway Feasibility Study / Requirements of SB105

- The project must respond to SB 105, which requires an independent study of the Illiana Expressway to address
 - Project need
 - Identification of a highway alignment corridor and alternative routes
 - Traffic forecasts and potential toll revenue
 - Cost
 - Financing options
 - Impacts
- Study findings to be presented to the Illiana Expressway Proposal Review Committee and Governor prior to 7/1/09

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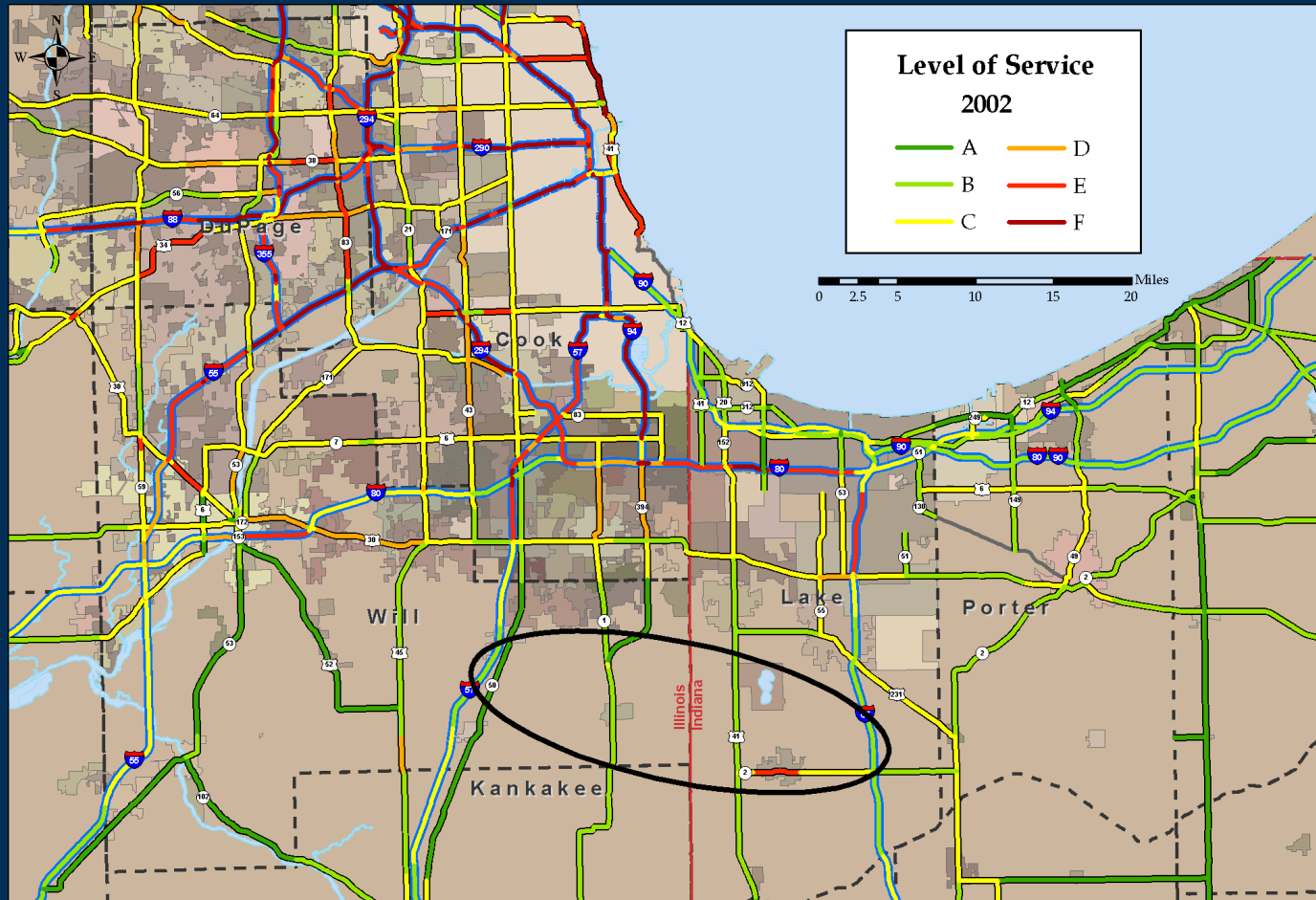


Illiana Study Area Land Cover



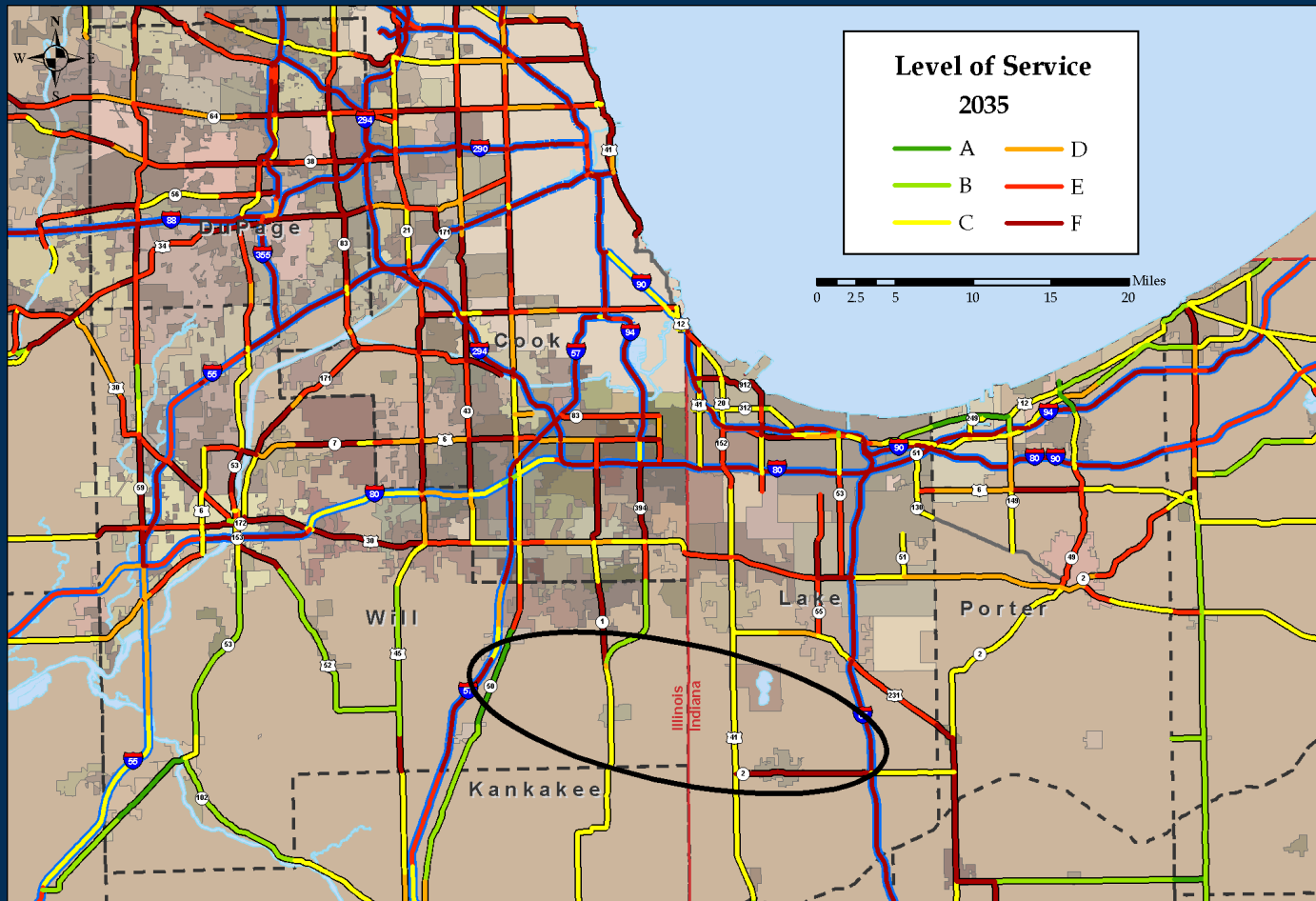
Illiana Study Area Roadways

2002 Levels of Service



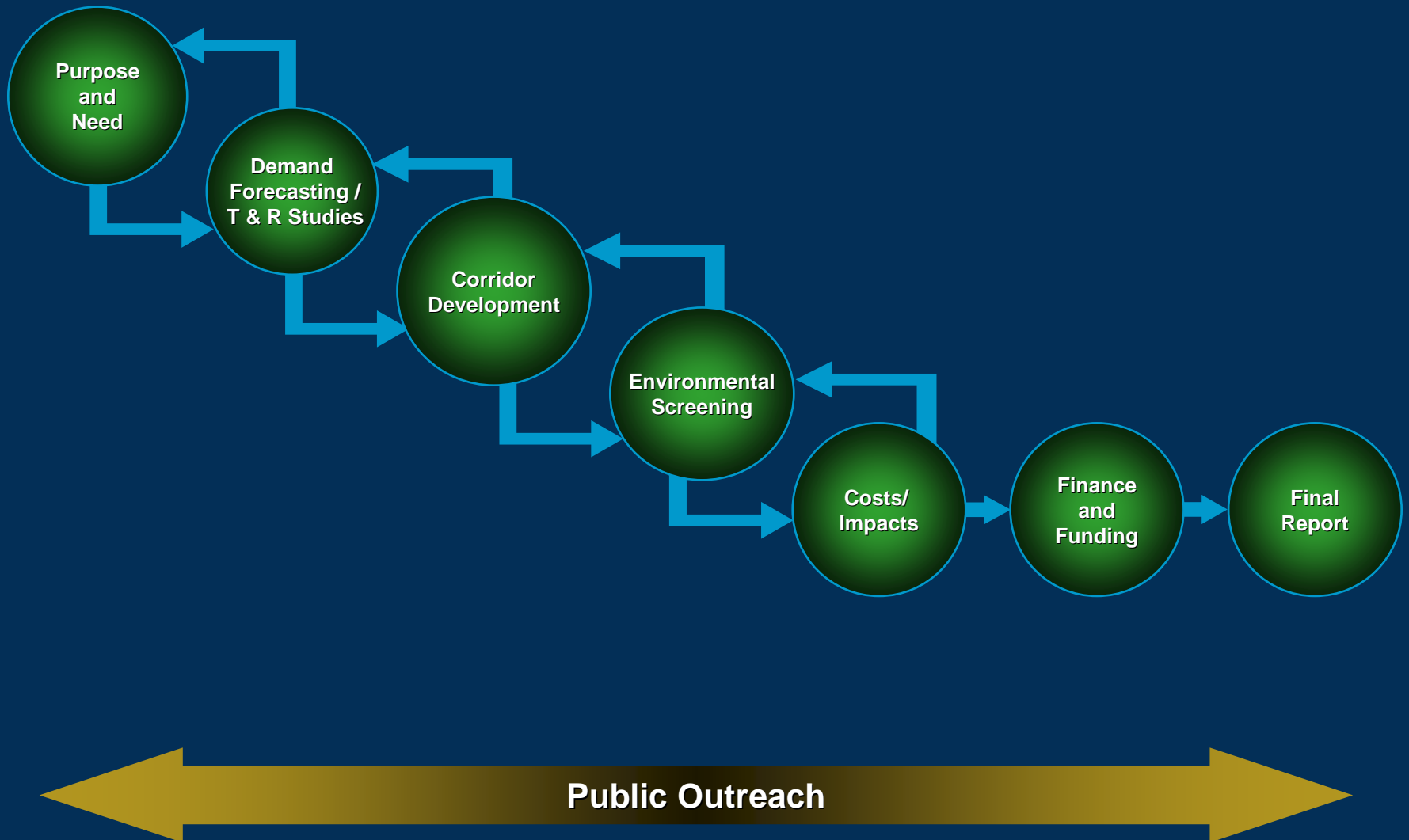
Source: Freight Analysis Framework 2.

Illiana Study Area Roadways 2035 Levels of Service



Source: Freight Analysis Framework 2.

Project Approach



Project Purpose and Need

- **Congestion reduction**
 - Impacting both passenger travel and commerce
- **Safety**
- **Regional and National Economic Impacts**
- **Mobility (both freight and passenger)**
- **Bi-State Connectivity and Accessibility**

Demand Forecasting

- Needs to address
 - Passenger and freight
 - Local, regional, and through trips
 - Various socioeconomic, network, and toll rate scenarios
- Proposed approach
 - Integrate existing models
 - INDOT Freight Model, developed by CS
 - NIRPC regional travel demand model
 - CMAP regional travel demand model

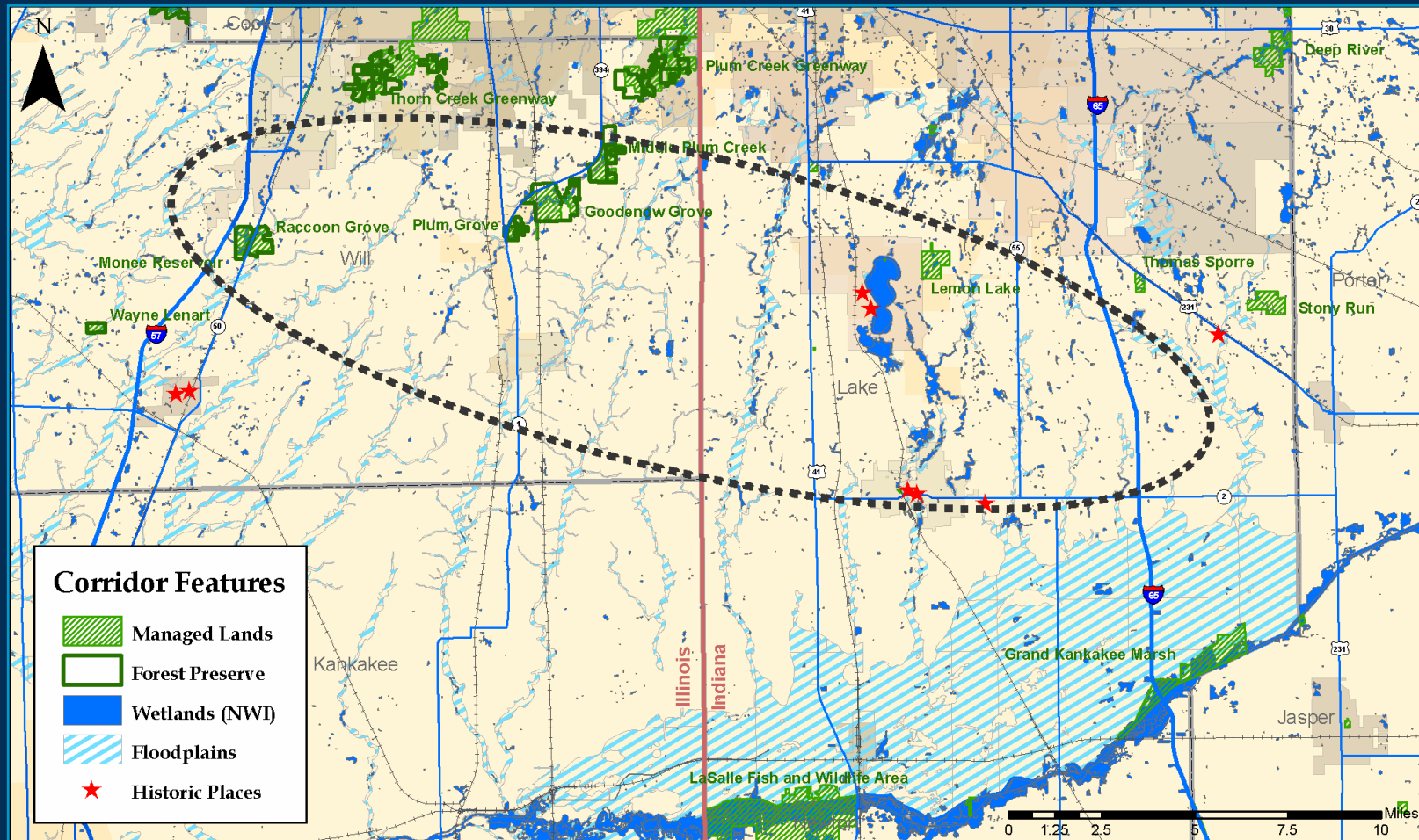
Traffic and Revenue Analysis

- **Change in demand over time**
 - Limited independent analysis of land use forecasts
 - Other changes to transportation network
- **Willingness to pay by market**
 - Autos versus trucks
 - National, regional, and local markets
 - Commodities
- **Areas of uncertainty**

Financial Considerations

- **Create cost and revenue cash flows**
- **Consider different financial structures**
 - **Tolling**
 - **TIFIA**
 - **Private activity bonds**
 - **Public private partnerships**
 - **Design-build to concession**
 - **Traditional finance models (freeway with bonds)**












Environmental Screening



Alignment Studies/Cost Estimates

- Corridor location
- Managed lane scenarios
 - Truck-only lanes
 - HOV lanes
 - HOT lanes
- Access versus mobility/interchange spacing
- Typical cross sections
- Cost estimates (capital + O&M)

Identify Build-Out Scenario

EXPANSION SEQUENCE	TYPICAL SECTION
INITIAL CONSTRUCTION	<div>MIXED</div> 
TY 1 EXPANSION	<div>MIXED</div> 
TY 1 EXPANSION	<div>MIXED</div> 
TY 2 EXPANSION	<div>2 TRUCK LANES</div>  <div>4 PV LANES</div>  <div>4 PV LANES</div>  <div>2 TRUCK LANES</div> 
TY 1T EXPANSION	<div>3 TRUCK LANES</div>  <div>4 PV LANES</div>  <div>4 PV LANES</div>  <div>3 TRUCK LANES</div> 

Schedule

